

ABSTRACT

The lighting device for a discharge lamp supplies HF pulse voltage from an HF power source circuit to an external electrode and lights an external electrode type fluorescent lamp 13 using rare gas. The fluorescent lamp 13 includes rare gas having a pressure of 120 torr or higher, and is supplied with a lamp current having a frequency in a range from 24 kHz to 34 kHz. The lighting device drives the fluorescent lamp 13 with high luminance and without flickering even under a light control is applied.

Further, with the lighting device for a discharge lamp according to the embodiment of the present invention, the drive frequency of the fluorescent lamp 13 is selected from a frequency band ranging from 24 kHz to 34 kHz, in which an audible noise is not generated, in a high ratio light control mode including 100%. The drive frequency of the discharge lamp fluorescent lamp 13 is selected from a lower frequency band ranging from 20 kHz to 24 kHz, in a low ratio light control mode. As a result, stable and high luminance lighting is realized in the high ratio light control mode, in which a positive column in the lamp does not shrink.